

What is claimed is:

1. A positive photosensitive resist composition comprising a resin binder and an encapsulated inorganic material.
2. The positive photosensitive resist composition of claim 1, wherein the binder is a t-butyl blocked polyvinyl phenol.
3. The positive photosensitive resist composition of claim 1, wherein the binder is a polyvinylphenol and t-butyl acrylate copolymer.
4. The positive photosensitive resist composition of claim 1, wherein the binder is a polyvinylphenol, t-butyl acrylate and styrene terpolymer.
5. The positive photosensitive resist composition of claim 1, wherein the binder is a DNQ novalak binder.
6. The positive photosensitive resist composition of claim 1, wherein the encapsulated inorganic material is silicon dioxide. *Silica*
7. The positive photosensitive resist composition of claim 1, wherein the encapsulated inorganic material is aluminum oxide. *Alumina*
8. The positive photosensitive resist composition of claim 1, wherein the encapsulated inorganic material is titanium dioxide. *Titania*

9. The positive photosensitive resist composition of claim 1, wherein the content of the encapsulated inorganic material is between about 0.1% and about 90% by weight of the positive photosensitive resist composition.

10. The positive photosensitive resist composition of claim 1, wherein the content of the encapsulated inorganic material is between about 5% and about 75% by weight of the positive photosensitive resist composition.

11. The positive photosensitive resist composition of claim 1, wherein the content of the encapsulated inorganic material is between about 20% and about 50% by weight of the positive photosensitive resist composition.

12. The positive photosensitive resist composition of claim 1, wherein the binder and the encapsulated inorganic material form a clear positive photosensitive resist composition.

13. The positive photosensitive resist composition of claim 1, further comprising a surfactant.

14. The positive photosensitive resist composition of claim 1, further comprising a solvent.

15. The positive photosensitive resist composition of claim 1, wherein the encapsulated inorganic material further comprises core particles having an average size ranging from about 1 nm to about 50 nm.

16. The positive photosensitive resist composition of claim 15, wherein the average size of the particles ranges from about 1 to about 20 nm.

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17. The positive photosensitive resist composition of claim 1, wherein the encapsulated inorganic material further comprises core particles having an average size less than about 5 nm.

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